

ABSTRACT

MECHANICAL FREEZER

The Mechanical Freezer of this invention closely approaches an ideal freezer cycle composed of constant temperature compression, expansion, and constant volume heating (load transfer) by using power piston **106** that power input shaft **50** moves up and down and displacers **104** and **105** that are moved by cam **108**. When power piston **106** moving up and additional displacer **105** moving down come together, fluid is forced through additional heat sink **41** where it is cooled as it is compressed. When additional displacer **105** and primary displacer **104** come together, fluid is forced through primary heat sink **40** where it is cooled as it is compressed. After compression, the cooled fluid is expanded by power piston **106** along with displacers **104** and **105** moving down. When displacers **104** and **105** then move up, fluid is forced through load **30** and load **30** is cooled.